

REMARKS

This Response is in reply to a non-final Office Action dated July 22, 2009. Claims 27-33 and 35-52 are pending with claims 39-52 withdrawn from consideration. Claims 27-33 and 35-38 stand rejected under 35 U.S.C. §103(a) as unpatentable over WO 02/058177, corresponding to U.S. Patent No. 7,226,699 ("Uetake"), in view of U.S. 6,485,856 ("Brown.") Claim 37 is also objected to for improper dependent form. Applicants herein amend claim 37 to correctly depend from claim 27, and respectfully traverse the §103(a) rejection by argument. Brown does not supply the elements asserted to be present by the Patent Office and therefore each and every aspect of the claimed invention are not present in the two references.

The Patent Office admits that Uetake does not disclose a polymer of a substance having a basic group, and relies upon Brown to supply this missing limitation. In support of that assertion, the Patent Office points specifically to col. 6, lines 60-64. Regardless of whether or not Uetake supplies the other limitations asserted by the Patent Office, and regardless of whether or not the elements relied upon by the Patent Office are properly combinable, the selection of Brown relied upon by the Patent Office does not provide a polymer having a basic group.

The groups exemplified in Brown at col. 6, lines 60-64 are anionic polymers. Specifically mentioned are polybenzimidazole alkyl sulphonic acids, polybenzimidazole alkyl phosphonates, and polybenzimidazole aryl phosphonates. All these groups are **acidic residues**. In the case of sulphonic acids, these are the protonated form. In the case of phosphonates, these may be the deprotonated or protonated forms. None of these groups are basic groups as one of ordinary skill in the art would recognize. As such, they do not meet the required aspect of the claimed invention. In further support of this point, a larger review of that section of Brown supports this conclusion. Brown, in col. 6, is discussing a range of proton conducting polymers, numbered 1) through 7). Every one of these sections identifies the polymer as acid functionalized. See, e.g., Brown col. 6, lines 15-20, 31-33, 50, 58-59, 62-64, and col. 7, lines 5-6. Brown simply fails to teach basic groups in the polymer.

One could argue that the phosphonates are basic groups because they represent the conjugate base of the acidic group. However, this argument is improper for two reasons. First, phosphonates are salts, e.g. sodium alkyl phosphonate, and washing a sodium phosphonate with water or acid will ion exchange to form the phosphonic acid and a salt. Second, combining the, for example, sodium phosphonate with a, for example, fullerene with acidic groups would not

form a derivative as required by the claims. The two components would not be bonded to one other through ionic forces, but instead would have separate counterions and simply wash away from one another.


Because Brown does not teach the assert claim aspects, Applicants assert that the rejection is improper and respectfully request it be withdrawn. Accordingly, Applicants believe that the present application is in condition for allowance and earnestly solicit reconsideration of same.

The Commissioner is hereby authorized to charge deposit account 02-1818 for any fees which are due and owing.

Respectfully submitted,

K&L GATES LLP

BY



Thomas C. Basso (46,541)
Cust. No. 29175

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